



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,238	03/29/2001	Michael Federwisch	103.1064.01	6317

22883 7590 04/26/2004
SWERNOFSKY LAW GROUP PC
P.O. BOX 390013
MOUNTAIN VIEW, CA 94039-0013

EXAMINER

AL HASHEMI, SANA A

ART UNIT PAPER NUMBER

2171

DATE MAILED: 04/26/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

SL

Office Action Summary

Application No.

09/823,238

Applicant(s)

FEDERWISCH, MICHAEL

Examiner

Sana Al-Hashemi

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9,11-14,17-21,23-25,28-31 and 33-35 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,10,15,16,22,26,27 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,4-9,11-14,17-21,23-25,28-31 and 33-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2171

DETAILED ACTION

Claims Status: claims 1, 4-9, 11-14, 17-21, 23-25, 28-31, 33-35 are rejected, Claims 2, 3, 10, 15, 16, 22, 26, 27, and 32, are cancelled.

Applicant's arguments with respect to claims 1, 4-9, 11-14, 17-21, 23-25, 28-31, 33-35 have been considered but are moot in view of the new ground(s) of rejection.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/2/2003 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2171

Claims 1, 4-8, 11-14, 17-20, 23-25, 28-30, 33, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boonie et al (US Patent No. 6,658,513) in view Bamford et al (US Patent No. 5,873,098).

1. Regarding Claims 1, 14, 25, and 35, Boonie discloses a method of propagating data, comprising:

mirroring the data from a first filer to a second filer (see Fig. 1, 106, column 3, lines 23-27, Boonie); and

mirroring the data from the second filer to a third filer (see Fig. 1, 102, Boonie);

Boonie does not explicitly disclose the method snapshots are used in mirroring the data, the data is organized in one or more volumes on the filers, one or more of the volumes are mirrored, and the first filer uses softlocks to mark snapshots needed for mirroring volumes from the first filer. However, Bamford discloses the use of snapshots are used in mirroring the data, the data is organized in one or more volumes on the filers, one or more of the volumes are mirrored, and the first filer uses softlocks to mark snapshots needed for mirroring volumes from the first filer (see column 4, 5, lines 41-67, 1-43, respectively). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the snapshots method to copy a document with the motivation of keeping record of all versions of the document which saves all the records for each particular document and allows users to keep track of all changes for each file.

Wherein deletion of a snapshot marked with softlock is prevented (see column 4, lines 21-38, Bamford, and Fig. 6A, Boonie).

2. Regarding Claims 4, 6, 7, 17, 19, and 28, the combination of Boonie in view of Bamford disclose a method wherein deletion of a snapshot marked with a softlock is prevented (see column 7, lines 42-50, Bonnie)).

3. Regarding Claims 5, 18, and 29, the combination of Boonie in view of Bamford discloses a method wherein entry of a release command to the first filer informs the first filer that the second filer will no longer mirror the volume from the first filer, and wherein the softlocks are updated to indicate that any snapshot corresponding to the volume can be deleted (see column 8, lines 29-41, Boonie).

4. Regarding Claims 8, 20, and 30, the combination of Boonie in view of Bamford discloses a method wherein entry of a release command to the second filer informs the second filer that the third filer will no longer mirror the volume from the second filer, and wherein the softlocks are updated to indicate that any snapshot corresponding to the volume can be deleted (see Fig. 2A, column 8, lines 42-47, Boonie).

5. Regarding Claims 11, 12, 13, 23, and 33, the combination of Boonie in view of Bamford discloses a method wherein the second filer also mirrors one or more volumes from a fourth filer (see Fig. 1, 102, Boonie).

6. Regarding Claim 24, Kleiman discloses a memory wherein the memory includes RAM, ROM, a disk, or a CD-ROM (see Fig. 1, 100, column 3, lines 23-40, Bamford)).

Claims 9, 21, and 31, are rejected under 35 U.S.C. 103(a) as being unpatentable over Boonie et al (US Patent No. 6,658,513) in view Bamford et al (US Patent No. 5,873,098) further in view of Raz et al. (US Patent No. 5,852,715).

7. Regarding Claims 9, 21, and 31, the combination of Boonie in view of Bamford discloses all the limitations subject matter except the step of using the jump ahead protection is used during mirroring operations, said jump ahead protection preventing activation of a snapshot of a volume while mirroring the volume to another filer. Examiner notes that it was notoriously well known in the art to provide a protection when updating or mirroring data as cited by Raz et al. (see column 6, lines 39-67, Raz). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a protection, like that of Raz et al., when copying files with the motivation of protecting the data from corruption and making sure that all the data have been copied.

Claim 34, are rejected under 35 U.S.C. 103(a) as being unpatentable over Boonie et al (US Patent No. 6,658,513) in view Bamford et al (US Patent No. 5,873,098) further in view of Pothapapragada et al. (US Patent No. 6,442,682).

8. Regarding Claim 34, the combination of Boonie in view of Bamford does not explicitly discloses the use of a filer wherein the file system utilizes a write anywhere file system layout implemented on a redundant array of inexpensive disks. However, Pothaparagada discloses the use of a filer wherein the file system utilizes a write anywhere file system layout implemented on a redundant array of inexpensive disks (see column 8, lines 35-39, Potharagada). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the WAFL with the motivation of the system capability of optimizing performance using techniques such as pre-allocation of blocks in a sequential write.

Other Prior Art Made of Record

1. Kleiman et al (US Pub. No. US 2001/0044807) disclose a file system image transfer.
2. Mcbrearty et al. (US Patent No. 6,216,211) discloses a method and apparatus for accessing mirrored logical volumes.
3. Bobbitt et al. (US Pub. No. 2003/0115218A1) discloses virtual file system.
4. Van Hoff et al. (US Patent No. 6,272,536) discloses a system and method for the distribution of code and data.

Art Unit: 2171

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to: Sana Al-Hashemi whose telephone number is (703) 305-4881. The examiner can normally be reached on Monday - Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (703) 308-1436. Any response to this office action should be mailed to: The Commissioner of Patents and Trademarks, Washington, D.C. 20231. Or telefax at phone number (703) 872-9306. For formal or draft communications, please label "PROPOSED" or "DRAFT". Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, 6th Floor Receptionist, Arlington, Virginia. 22202.

Sana Al-Hashemi
Patent Examiner
Technology Center 2100
April 19, 2004


SAFET METJAHIC
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100